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EXAMINER	
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ART UNIT	PAPER NUMBER
1733	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/797,400	BEVINS ET AL.	
	Examiner	Art Unit	
	Sam Chuan C. Yao	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *9-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 11-14 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the product as claimed can be made by another and materially different process (MPEP § 806.05(f)) such as heat-welding 1st and 3rd filament webs to form a laminate, and then disposing and heat-welding 2nd filament webs onto the surface of 3rd filament of the laminate. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11-14 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. Applicant's election of Species A (claims 1-4 and 6-8) in the reply filed on 10-04-04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storey et al (US 4,784,892) in view of Brock et al (US 4,041,203), Willey et al (US 5,766,737), Boe et al (US 4,082,878), Mallen et al (US 5,288,544) and Fujiwara et al (US 5,951,535).

With respect to claims 1-3 and 8, Storey et al, drawn to a continuous in-line process of making an absorbent laminated nonwoven web such as wipes, discloses forming a 1st melt-blown fibrous covering web, forming a melt-blown fibrous core web, forming a 2nd melt-blown fibrous covering web; heat-pressing (using a pair of embossing rolls) the three webs to consolidated the webs by pattern fusion welding the webs together; wherein different materials such as polyester, nylon, polyethylene, polypropylene, etc. can be used for the 1st and 2nd covering webs, while the core web uses a material which is different from at least one of the covering webs (col. 1 lines 5-8; col. 2 lines 12-30; col. 3 lines 22-34; figures 1-2).

Storey et al does not teach forming continuous filaments in forming the three fibrous webs layers. However, it would have been obvious in the art to replace the melt-blown fibers with spun-bond filaments fibers in forming web layers in a process suggested by Storey et al, because: a) Brock et al teaches making a patterned bonded three-layered absorbent article (such as wipes) comprising either a pair micro-fiber covering webs and a filamentary core **or** a pair of filamentary covering webs and a microfiber core; where the polymers which are used for the covering webs and the core can be made from "different polymer

types" (col. 1 lines 24-39; col. 3 lines 23-38; col. 6 lines 11-28); b) Willey et al teaches the desirability of continuously forming in-situ a pair of filamentary covering webs and a melt-blown core for making a patterned bonded 3-ply fabric for used as disposal wipes; wherein the polymeric materials for the covering webs are different. (col. 3 line 26 to col. 4 line 67; col. 6 lines 25-43; figure 2); c) staple fibers and (filaments or long fibers) are art recognized interchangeable materials for making absorbent articles such as a cleaning/wiping cloth as exemplified in the teachings of Boe et al (abstract; col. 1 lines 8-44); d) Mallen also discloses using either synthetic continuous or staple fibers in making a highly absorbent article for making wash cloths, and further teaches that, *"[w]hen the synthetic fiber is in the continuous filament form, the resulting fabric is essentially non-linting. When the synthetic fiber is in the non-continuous staple form, the fabric will lint to a limited extent but the amount of lint will be substantially less than that obtained by the corresponding cotton fabric."* (emphasis added; col. 1 lines 13-25; col. 2 lines 49-65); and, e) Fujiwara et al, in discussing a related prior art, discloses that non-woven webs which are derived from spun-bonded long fibers have a *"higher tenacity and are relatively cheap as compared with short fiber non-woven fabric"* and further teaches that, a short fiber non-woven web has another drawback, because short fibers are *"readily broken when used as a surface material of absorptive articles"* (col. 1 lines 33-65).

As for an added limitation in claim 1, this added limitation does not positively require using ONLY the 3rd filament web as bonding agent for welding the 3 web layers together. There are only three convenient ways to thermally pattern weld the three web layers in the modified process of Storey et al. The first is to pattern weld the layers together at a temperature which is higher than the softening/melting temperature on any of the polymers that are used in the modified process of Storey et al. In fact, this type of welding process operation appears to be taught by Brock et al. See example 1 in column 7 for the softening temperature of polypropylene mat and polypropylene web (137 °C and 150 °C, respectively) and example 9 for the temperature of the embossing rolls (top 154.4 °C & bottom160 °C). Alternatively, one could use a polymeric core layer, which has a softening/melting temperature that is lower than the softening/melting temperature of either polymer of the facing webs. Another and last alternative way is to soften/melt both facing webs without softening the core layer. This can be accomplished by using facing webs, which have softening/melting temperatures that are lower than the softening/melting temperature of the core web layer. The advantage of the former alternative over the latter alternative is that, only one web layer needs to be softened/melted as opposed to melting two opposing facing web layers which presumably have different softening/melting temperature since they are different polymeric materials. In any event, a preference on whether to apply any one of the three processes for pattern welding the web layers together is taken to be well within

the purview of choice in the art. None, but only the expected result of pattern welding the web layers would have been achieved in applying anyone of the three processes. For these reasons, this added limitation would have been obvious in the art.

With respect to claim 4, it is old in the art of making an absorbent web comprising a covering web having polypropylene blend filaments. For this reason, this claim would have been obvious in the art.

5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 4 as applied to claim 1 above, and further in view of Abed et al (US 2002/0148547 A1).

With respect to claim 6, while Storey teaches using a pair of embossing rolls where *"one of which is engraved with a bonding pattern"*, Storey et al is silent on the relative temperatures between an engraved roll and a smooth roll (i.e. the temperature of engraved roll is greater than the temperature of a smooth roll). However, such would have been obvious in the art, because it is old in the art to emboss an absorbent three-layered fibrous web using a pair of embossing rolls, where a temperature of an engraved roll is higher than a temperature of a smooth roll, and wherein different polymers can be used in preparing layers in the web as exemplified in the teachings of Brock et al (abstract; col. 1 lines 24-39; col. 3 lines 3-38; col. 4 lines 9-42; example IV table, in particular, see the temperature of rolls 42 and 44); and, Abed et al discloses the advantage of using a pair of embossing rolls, where the temperature of engraved roll is higher than a

temperature of an anvil (i.e. smooth) roll, for constructing a three-layered fiber web (abstract; numbered paragraphs 3-5,8, 12-19).

With respect to claim 7, Abed et al teaches the desirability of using polyethylene fibers in forming a fabric, when it is used where it comes in contact with human skin. However, Abed et al noted that, polyethylene fibers present processing difficulties since the polyethylene fibers tend to stick to heated calender rolls and they have a narrow working temperature (numbered paragraph 3). To address this problem, Abed et al suggests forming a multi-layered fiber web by embossing a plurality of fibrous web layers using a pair of embossing rolls, where a higher temperature engraved roll is used to press against a 1st polypropylene web layer, while a lower temperature anvil roll is used to press against the 2nd core/sheath fiber web layer; wherein a polypropylene is used for the core and a polyethylene for the sheath (numbered paragraphs 3-5,8, and 12-19). It would have been obvious in the art to position the plurality of fiber webs in a modified process of Storey et al such that a covering polyethylene fiber web layer is positioned so that it contact against a lower temperature anvil roll to prevent the web from sticking onto a heated roll while achieving the desired tactile characteristics (i.e. softness).

Response to Arguments

6. Applicant's arguments filed on 03-03-06 have been fully considered but they are not persuasive.

At the outset, Counsel is clearly resorting to the classic piecemeal analysis of applied references. It is respectfully submitted that, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

On page 8, Counsel argued that "there is *no teachings* in Storey et al. of forming a nonwoven fabric laminate from *continuous filament layers*, wherein the layers are formed from dissimilar polymers."(italic in original). Examiner agrees. That's precisely the reason why the claimed invention was rejected under 35 USC 103 over Storey et al in view of secondary references instead of being rejected under 35 USC 102 as being anticipated by Storey et al. The main issue here however is, whether or not, one in the art would have been motivated to modify the process of Storey et al such that, continuous filaments are used instead of staple fibers. For reasons noted above, such would have been obvious in the art.

On page 9 full paragraph 1, Counsel argued that "... Willey et al., like the cited Brock et al patent is specifically limited in its teachings to the use of a meltblown fibrous layer interposed between associated spunbond filament webs". It is respectfully submitted that while Brock et al teaches interposing a meltblown fibrous layer between associated spunbond filament webs, Brock et al also teaches a spunbond filament layer interposed between associated meltblown fibrous webs. Equally important, staple fibers and (filaments or long fibers) are art

recognized interchangeable materials for making absorbent articles such as a cleaning/wiping cloth as exemplified in the teachings of Boe et al (abstract; col. 1 lines 8-44). Mallen also discloses using either synthetic continuous or staple fibers in making a highly absorbent article such as wash cloths, and further teaches that, *"[w]hen the synthetic fiber is in the continuous filament form, the resulting fabric is essentially non-linting. When the synthetic fiber is in the non-continuous staple form, the fabric will lint to a limited extent but the amount of lint will be substantially less than that obtained by the corresponding cotton fabric."* (emphasis added; col. 1 lines 13-25; col. 2 lines 49-65). Fujiwara et al, in discussing a related prior art, discloses that non-woven webs which are derived from spun-bonded long fibers have a *"higher tenacity and are relatively cheap as compared with short fiber non-woven fabric"* and further teaches that, a short fiber non-woven web has another drawback, because short fibers are *"readily broken when used as a surface material of absorptive articles"* (col. 1 lines 33-65). One in the art reading the collective teachings of the above prior art references would have been motivated to replace the melt-blown fibers in the process of Storey et al with continuous filaments in order to enhance the properties of the finished 3-ply absorbent fibrous web.

On page 9 last paragraph, "... M.P.E.P. Section 2143.01, which specifically admonishes that "the prior art must suggest the desirability of the claimed invention" and that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose."" (quotation in original). Examiner agrees.

As noted above, since: a) Brock et al teaches making a patterned bonded three-layered absorbent article (such as wipes) comprising either a pair micro-fiber covering webs and a filamentary core **or** a pair of filamentary covering webs and a microfiber core; where the polymers which are used for the covering webs and the core can be made from "different polymer types" (col. 1 lines 24-39; col. 3 lines 23-38; col. 6 lines 11-28); b) Willey et al teaches the desirability of continuously forming in-situ a pair of filamentary covering webs and a melt-blown core for making a patterned bonded 3-ply fabric for used as disposal wipes; wherein the polymeric materials for the covering webs are different. (col. 3 line 26 to col. 4 line 67; col. 6 lines 25-43; figure 2); c) staple fibers and (filaments or long fibers) are art recognized interchangeable materials for making absorbent articles such as a cleaning/wiping cloth as exemplified in the teachings of Boe et al (abstract; col. 1 lines 8-44); d) Mallen also discloses using either synthetic continuous or staple fibers in making a highly absorbent article, and further teaches that, *"[w]hen the synthetic fiber is in the continuous filament form, the resulting fabric is essentially non-linting. When the synthetic fiber is in the non-continuous staple form, the fabric will lint to a limited extent but the amount of lint will be substantially less than that obtained by the corresponding cotton fabric."* (emphasis added; col. 1 lines 13-25; col. 2 lines 49-65); and, e) Fujiwara et al, in discussing a related prior art, discloses that non-woven webs which are derived from spun-bonded long fibers have a *"higher tenacity and are relatively cheap as compared with short fiber non-woven fabric"* and further teaches that, a short

fiber non-woven web has another drawback, because short fibers are *"readily broken when used as a surface material of absorptive articles"* (col. 1 lines 33-65), it would have been obvious in the art to replace the melt-blown fibers in the process of Storey et al with filamentary materials.

As for Counsel's arguments on page 10 full paragraphs 1-2 regarding the Mallen et al and Fujiwara et al patents, it is respectfully submitted that, one in the art making a 3-ply absorbent article of Storey et al confronted with problems with fiber lint and/or web strength would have look for solutions to a related absorbent art. Those versed in the art reading the teachings of Mallen et al and Fujiwara et al in light of the teachings of the prior art references would have motivated one in the art to replace the melt-blown fibers in the process of Storey et al with spun-bond filaments in order to reduce the problems with web strength and fiber lint.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richard Crispino can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
04-17-06